

ABSTRACTMethod of calibrating a microwave source

The present invention relates to a method for calibrating the phase of a microwave source, in which: ~~[[ - ]]~~ a calibration circuit is closed, the calibration circuit comprising an injection channel connected to a measurement channel via the source to be calibrated; ~~[[ - ]]~~ a test signal is injected through the source to be calibrated, the test signal being injected on the injection channel, ~~[[ - ]]~~ the phase  $\varphi_m$  of the signal having passed through the source to be calibrated is measured, the phase of the signal being measured on the measurement channel, ~~characterized in that:~~ wherein: ~~[[ - ]]~~ the amplitude  $A_m$  of the signal having passed through the source to be calibrated is measured, the amplitude of the signal being measured on the measurement channel;

~~[[ - ]]~~ the calibration circuit is opened at the source to be calibrated; ~~[[ - ]]~~ the test signal is injected on the injection channel; ~~[[ - ]]~~ the phase  $\varphi_f$  and the amplitude  $A_f$  of the signal present on the measurement channel is measured; ~~[[ - ]]~~ a corrected phase value  $\varphi_c$  is determined, this corrected phase being the phase of a complex number  $U_c$ , calculated from two complex numbers  $U_m$  and  $U_f$ , where:  $U_m = A_m \cdot \exp(i \cdot \varphi_m)$   $U_f = A_f \cdot \exp(i \cdot \varphi_f)$

**Figure 6**